Amendments to the Specification:

Please replace paragraph [0002] with the following amended paragraph:

[0002] In composite systems of lithium polymer cells, the ~~storage system consists of~~ anode includes a Li intercalatable carbon ~~as anode~~, the cathode includes a [[an]] Li intercalatable heavy metal oxide ~~as cathode~~ and [[a]] the separator acts as a separating intermediate layer.

Please replace paragraph [0004] with the following amended paragraph:

[0004] Details regarding the manufacture and the system are known ~~from the literature~~ and can be found in "Handbook of Battery Materials" ~~edit.~~ editor I.O. Besenhard, Verlag VCH, Weinheim, 1999, (1). Special manufacturing processes such as [[e.g.]] the so-called Bellcore process are described in "Lithium Ion Batteries" ~~edit~~ editor M. Wakihara and O. Yamamoto, Verlag VCH, Weinheim 1998, page 235 and Fig. 10.9 (2).

Please replace paragraph [0005] with the following amended paragraph:

[0005] ~~In principle, different processes are used for the manufacture of the lithium polymer battery. Firstly, the coating process in which the polymer binder(s) necessary for the cathode and/or anode mass is dissolved (e.g. approximately 5 – 10 % fluoroelastomers homo or copolymers in e.g. N-methyl-pyrrolidone (NMP) and to this polymer solution, cathode specific or anode specific additives such as Li intercalatable metal oxides and/or Li intercalatable carbons (carbon black, graphite etc.) are added and dispersed and this dispersion is then applied onto current collectors (foils, strips, networks etc – Cu preferably for the anode, Al preferably for the cathode) depending on the film coating technique used.~~ Various processes have been used for the production of lithium polymer batteries. In a coating process, a polymer binder for a cathode mass and/or anode mass is dissolved, for example, in 5-10 % fluoroelastomer homopolymer or copolymer in N-methyl pyrrolidone (NMP). Cathode-specific and/or anode-specific additives such as lithium-intercalatable metal oxides and/or lithium-intercalatable carbons (carbon black, graphite and similar substances) are added to the polymer solution thus formed. The polymer

solution is then dispersed. The dispersion is then applied to current collectors (foils, strips, networks, etc.) using a coating technique.

Please replace paragraph [0006] with the following amended paragraph:

[0006] ~~One variation (1a) of the coating technique described above consists of using aqueous polymer dispersions instead of the polymer solution with organic solvents. The coatings obtained according to 1 or 1a are processed, after drying (wound) to form prismatic or wound cells, a so-called separator e.g. of Cellgard or such like with porous structures being used as intermediate layer, a system thus produced being placed into a housing and, before being closed, filled with (electrolyte) solution of supporting electrolyte (i.e. supporting electrolyte dissolved in aprotic solvents) (e.g. by applying a vacuum).~~ A variation (1a) of the above-described coating process uses aqueous polymer dispersions instead of polymer solutions containing organic solvents. After drying, the coatings obtained by the above-described process are processed into prismatic cells or wound cells. A separator, such as separator formed from polypropylene or polyethylene (e.g., Celgard®, Celgard Inc., Charlotte, NC) or similar substance with porous structures, is used as an intermediate layer. The system thus produced is placed into a housing and filled with supporting electrolyte solution before being closed.

Please replace paragraph [0007] with the following amended paragraph:

[0007] The so-called Bellcore process (1b) is a further variation of the coating processes described above. ~~technique; in this case, a component (dibutyl phthalate DBP, for example) was incorporated into the anode and/or cathode mass, which component was removed by dissolution before combining the anode/cathode/separator in the so-called Bellcore process (compare literature reference 2), in order to provide a satisfactory porosity, i.e. absorption capacity for the supporting electrolyte solution (electrolyte).~~ According to the Bellcore process, a component (e.g., dibutyl phthalate, DBP) is also incorporated into the anode mass and/or cathode mass. The component is removed by dissolution from the anode/cathode/separator in order to create sufficient porosity, that is, sufficient absorption capacity, for the supporting electrolyte solution to be added, and to provide migration paths for anions and cations during charging and

discharging. After drying, the coatings obtained by the Bellcore process are processed into prismatic cells or wound cells. A separator, such as separator formed from polypropylene or polyethylene (e.g., Celgard®, Celgard Inc., Charlotte, NC) or similar substance with porous structures, is used as an intermediate layer. The system thus produced is placed into a housing and filled with supporting electrolyte solution before being closed.

Please replace paragraph [0008] with the following amended paragraph:

[0008] Another process (2) consists of the extrusion of a the separator comprising a polymer gel electrolyte and an electrode (see, e.g., U.S. Pat. 4,818,643 and European Patent 0145498B1), or the extrusion of the anode, separator and cathode in extruders connected in parallel, followed by the subsequent union of the three components (see, e.g., U.S. Pat. App. 2004029008). (The word "electrode" as used herein means either an anode or a cathode. Similarly, the expression "electrode mass" means either an anode mass or a cathode mass.) ~~A process which is basically different (2) consists of the extrusion e.g. of the separator (polymer gel electrolyte) and e.g. a cathode (US Pat 4,818,643, EP 015 498B1) and/or the extrusion of the anode, separator and cathode in extruders connected in parallel with subsequent combining (DEO 10 020 031) coextrusion according to literature reference Polymeric (Materials and Processing edit., J.M. Charrier, Hanser Vertag Munich 1990 page 387/388).~~ The processes described so far have all had disadvantages, though they may be different~~: during~~. During the coating processes (1 – 1a), the organic solvent and/or the water (entrained by the polymer solution and/or dispersion) needs to be eliminated in all cases. Remaining solvent leads to "fading" i.e. loss of efficiency of the battery and lack of cycle stability~~, the~~. In addition, the organic solvent needs to be removed because of cost ~~for reasons of costs~~ and environmental protection concerns. The removal results in ~~which means~~ high drying temperatures or, in the case of the continuous process, longer drying times with lower drying temperatures and a vacuum~~; the~~. The same applies to the removal of water~~: disadvantages~~. If water is not removed, the following problems can arise in the film: ~~in homogeneities,~~ crack formation during tight winding, reduced adhesion on the current collectors, damage to the current collectors, migration of the electrolyte underneath the film etc.

Please replace paragraph [0010] with the following amended paragraph:

[0010] In process 1b, the necessary porosity for absorbing the electrolyte is obtained~~; however,~~ However, all the other disadvantages mentioned for 1 – 1a ~~remain applicable also~~ equally apply to 1b.

Please replace paragraph [0011] with the following amended paragraph:

[0011] Polyethylene oxide (PEO) is one of the products used for (2), the extruder process (US Pat 4,818,643~~); however, this~~. However, PEO does not exhibit any long term stability, i.e. a cycle stability of < 100, during battery operation. The other extruder process operates – compare examples with electrolytes based on EC/γ-BL (i.e. ethylene carbonate, γ-butyrolactone) - with LiClO4 as supporting electrolyte~~; this~~. This system, too, exhibits a low cycle stability of < 100 since γ-BL reacts under the operating conditions of the battery and leads to the formation of interfering secondary products~~; the~~. The ~~claimed~~ polymer PMM (polymethylacrylate) is also unstable and leads to undesirable secondary reactions. The recipes for the anode, cathode and the separator (polymer gel electrolyte) mentioned in the examples and the process detailed in example (1) do not lead to an operational battery with the data disclosed.

Please replace paragraph [0012] with the following amended paragraph:

[0012] The present invention avoids the disadvantages of the known processes by way of a new process concept with new components.

1. ~~The extruder~~ An anode mass and a cathode mass and a separator are produced by liquid coating and liquid extrusion. ~~, i.e. the~~ The anode mass and the cathode mass ~~contains the~~ contain an electrolyte and [[the]] an optimum supporting electrolyte ~~concerned~~.
2. Before processing, i.e. liquid coating, liquid extrusion, the anode mass as well as the cathode mass are prepared as follows: ~~added to other feed materials, i.e.~~
    a) dust portions with a particle size of < 6 μm are sieved out
    b) the anode mass and the cathode mass ~~materials~~ are degassed under vacuum and consequently liberated of adsorbed air and oxygen

c) processing takes place under argon

d) ~~the anode material, i.e.~~ Li intercalatable carbons of the anode mass[[,]] are treated with Li n-butyl ~~before use~~

e) ~~by grinding, thorough mixing and wetting of the electrode mass~~ the anode mass and the cathode mass are ground, thoroughly mixed and wetted with supporting electrolyte and electrolyte (aprotic solvent) ~~takes place~~

Please replace paragraph [0013] with the following amended paragraph:

[0013] ~~For the anode (AM):~~ The anode mass (AM) includes a Li intercalatable carbon. The Li intercalatable carbon can include nano-dimension carbon fibres having a hollow, porous structure. The Li intercalatable carbon can also include a natural ~~Natural~~, ground, non-ground, or modified graphite. The Li intercalatable carbon can also include a synthetic ~~Synthetic~~ graphite, mesophases, micro-beads, graphene, polyphenylenes, polyacetylenes. The graphite preferably has a globular structure. ~~: all C materials capable of forming intercalates with Li.~~

Please replace paragraph [0014] with the following amended paragraph:

[0014] ~~For the cathode :~~ The cathode mass (CM) includes a V, Ni, Co, Cr, Mo, W, Mn, Ti, Zr oxide and similar heavy metal oxides capable of forming intercalates with Li. The heavy metal oxides can be in an oriented form with a distorted lattice structure.

Please replace paragraph [0015] with the following amended paragraph:

[0015] After evacuation with supporting electrolyte, supporting electrolyte additives and/or solvents, the active components of the electrode mass (e.g., the Li intercalatable carbon in the anode mass and the metal oxide in the cathode mass) are wetted and/or impregnated. The wetting and/or impregnation can be performed by, for example, ~~e.g. by~~ intensive grinding or stirring. The grinding or stirring preferably occurs at temperatures from -20°C to 200°C, and more preferably at room temperature to 100°C. ~~, if necessary at elevated temperatures — preferably at up to 100°C.~~ All work is carried out under argon.

Please replace paragraph [0016] with the following amended paragraph:

[0016] The following are suitable supporting electrolytes: (compare literature reference 1 – Introduction) $LiPF_6$, $LiCF_3SO_3$, $Li[N(SO_2CF_3)_2]$, $Li[C(SO_2CF_3)_3]$, LiOB (Li oxalatoborate) or other organo-Li-borates and such like. Suitable supporting ~~Supporting~~ electrolyte additives include [[are:]] organic salts of the above-mentioned supporting electrolytes where ~~in the case of which~~ Li is replaced by an organic radical such as imidazolyl$^+$[[,]]. Suitable supporting electrolyte additives also include Li acetyl acetonate, Li metaborate, Li silicates, including natural ones such as spodumene, petalite, lepidolite, cryolthionite as well as carbon fibres or carbon powder saturated with or encased in Li salts, as well as MgO, BaO, Al_2O_3 and such like such as layer silicates, e.g. serpentine and/or tectosilicates such as zeolites which act as acid scavengers, water adsorbers or depot for supporting electrolytes, solvents or electrolytes.

Please replace paragraph [0018] with the following amended paragraph:

[0018] Carbonates: alkyl carbonate (AC), diethyl carbonate[[,]] (DEC), dimethyl carbonate[[,]] (DMC), ethyl-methyl carbonate[[,]] (EMC), ethylene carbonate[[,]] (EC), propylene carbonate[[,]] (PC) and such like, e.g. methoxyethyl methyl carbonate.

Please replace paragraph [0021] with the following amended paragraph:

[0021] Appropriately, the active components are degassed under vacuum at temperatures of -20^{0}C to 200^{0}C and ~~0-200^{0}C, preferably at room temperature to 100^{0}C,~~ at pressures of 20 to 10^{-4} torr. Preferably, the degassing is performed at temperatures from room temperature to 100^{0}C, and ~~preferably~~ at pressures form 2 to 10^{-2} torr. More preferably, the degassing is performed [[,]] before ~~they~~ the active components are contaminated with LS, LSA or LM.

Please replace paragraph [0026] with the following amended paragraph:

[0026] Suitable polymer binders include polyolefins. ~~Polyolefins,~~ polyethylene, polypropylene, polybutenes and ~~as well as their~~ copolymers thereof. The copolymers preferably include ~~, preferably with~~ olefins or acrylic acid esters/methacrylic acid esters with alkyl ester groups of C>3, also polyvinyl ether as well as polystyrene. The copolymers can include ~~and copolymers~~

~~with~~ butadiene or isoprene, preferably block copolymers produced anionically. Suitable polymer binders also include ~~, as well as~~ rubber, e.g. butyl rubber and/or SB rubber or polydienes (manufactured with Ziegler-Natta catalysts: literature reference H.G. Elias Makromoleküle, volume 2, page 141 (1992) Verlag Hüttig and Wepf – Basle) as well as fluoroelastomers, preferably copolymers or terpolymers based on PVDF, HFP, TFE and/or perfluoroalkoxy derivatives (lit. Ullmann's Encyclopedia of Industrial Chemistry, volume A 11, page 402 – 427, Verlag VCH – Weinheim 1988)~~ are suitable; in~~. In addition, polyethers made from ethylene oxide, propene oxide, butene oxide as homopolymer and/or copolymer with capped end groups are suitable polymer binders. Suitable polymer binders can also include [[,]] polyvinyl pyrrolidone and copolymers such as vinyl imidazol or methacrylic acid esters or vinyl caprolactam~~ also deserve interest~~. According to the process of the invention, the above-mentioned polymer binders are employed as electrically conductive polymers in the Li battery system by mixing them e.g. with conductivity carbon black.

Please replace paragraph [0027] with the following amended paragraph:

[0027] The production of the polymer binders according to the invention takes place by incorporation or jacketing. As an example, Styrolex® styrene-butadiene-styrene triple block polymer is filled with 30 % by weight carbon fibres (literature: Ullmann's Encyclopedia of Industrial Chemistry volume A 11, page 42 – 64) and then coated with a coating consisting of (10 % by weight) polyvinyl pyrrolidone (Luviskol) in 1M LiOB/dimethoxyethane solution and used as matrix for the active anode mass and/or cathode mass[[;]]. By way of another example, ~~in an analogous manner,~~ fluoroelastomers such as Kynar 280® and/or Dyneon THV 200®, are used as ~~PB; these~~ polymer binders. The fluoroelastomers are mixed, for example, [[e.g.]] with a solution of EC/PC 1:1 and LS:$LiPF_6$ (1M) with LSA:MgO and, if necessary, with carbon fibres.

Please replace paragraph [0028] with the following amended paragraph:

[0028] If the polymer binders are intrinsically conductive polymers such as polyacetylene, polypyrrol, polyaniline or carbon fibres, then ~~are used,~~ these polymer binders are preferably impregnated with a supporting electrolyte + solvent (LiOB + DMC/DEC) and then used as a

lattice, network or similar structure for fixing the electrode mass. If [[, if]] necessary, the polymer lattice, network, or similar structure can include polymer binders in addition to the intrinsically conductive polymers. ~~also in combination with the other polymer binders e.g. those mentioned above.~~

Please replace paragraph [0029] with the following amended paragraph:

[0029] The separator is an intermediate layer[[,]] that separates the ~~anodes~~ anode and the cathode. The separator is [[as]] a film, mesh fabric, fleece, woven fabric and such like. The separator [[and]] is made or used either by liquid coating or extrusion.

Please replace paragraph [0032] with the following amended paragraph:

[0032] The separator consists of organic polymers (compare polymer binder PB) and, if necessary, supporting electrolyte, supporting electrolyte additives and/or solvents. For the use according to the invention, porous structures are preferred. The separator is manufactured ~~manufacture takes place~~ by extrusion, casting, coating etc.

Please replace paragraph [0033] with the following amended paragraph:

[0033] Conductors~~: They~~ are used to discharge the current produced in the battery system (to the + or – pole of the battery)[[;]]. Preferably, the conductors ~~they should~~ adhere tightly to the electrode mass and exhibit [[as]] a low [[an]] electrical contact resistance~~ as possible~~. The conductors can comprise one or more of a metal foil, a carbon fibre fabric, a netting, a polyacetylene film, and a polypyrrolidone film.

Please replace paragraph [0034] with the following amended paragraph:

[0034] Suitable conductors are carbon fibres, graphite, electrically conductive polymers and/or metals~~; preferably,~~. Preferably, a conductor for the cathode ~~conductor~~ is primer-coated, e.g. with carbon black/terpolymers Dyneon THV. An important aspect with conductors is the presence of an active, fat-free and coating-free surface onto which the primer and/or the active electrode mass can be applied. The primer layers are 0.1 to 10 μm thick. Primer layers are obtained by C-

plasma coating, applying e.g. carbon black-filled polymers such as Kynar 2801 with 30 % by weight of carbon black in N-methyl pyrrolidone (NMP), polyacrylonitril with 30 % by weight of carbon black in dimethyl formamide (DMF), and Dyneon THV® with 30 % by weight of carbon black, aqueous, polyvinyl alcohol + 30 % by weight of carbon black, aqueous~~(DMF = dimethyl formamide, NMP = N methyl pyrrolidone)~~.

Please replace paragraph [0035] with the following amended paragraph:

[0035] The process according to the invention can be carried out such that ~~is based on the coating and/or extrusion technology in the case of which~~ all the necessary components for the anode mass, the cathode mass, ~~electrodes concerned~~ and/or for the separator are present as spreadable, coatable or extrudable mixtures with solvents, supporting electrolyte, additives and the active components (Li intercalatable carbons and/or Li intercalatable heavy metal oxides) and are processed in a continuous, preferably single stage process, with the monomers polymerising and solidifying. The mixtures consist of dispersions and/or spreadable pastes which are applied onto the primer-coated conductors at room temperature~~, e.g.~~. For example, a composite system can be formed where a primer-coated Cu foil [[–]] is coated with the anode mass (15 – 40 μm thick), then the cathode mass is applied, with the separator (15 – 40 μm thick), to the anode mass. Finally, ~~and finally,~~ the cathode conductor (Al foil primer coated with Dyneon THV/carbon black) is applied to the cathode mass to form a ~~. The~~ composite system that ~~thus formed~~ is laminated and wound, placed in a housing, poled etc. to form salable, rechargeable Li batteries.

Please replace paragraph [0036] with the following amended paragraph:

[0036] The process of manufacture can also be designed such that a double-sided coating can be effected and/or parallel anode and/or cathode conductors can be coated~~and the~~. The separator is then integrated into the composite structure as an isolating intermediate layer consisting of [[–as]] foil saturated with a supporting electrolyte and a solvent or as a coating laminate. The anode mass or the cathode mass can be applied to the current conductor by a doctor blade application, coating and extrusion.

Please replace paragraph [0039] with the following amended paragraph:

[0039] The anode masses contain:

50 – 85 % by weight	Li intercalatable carbon + additive	} Solids
5 – [[20]] 30 % by weight	Polymer binder	
0.1 – 5 % by weight	Supporting electrolytes	
10 – 40 % by weight	Organic solvent	

Please replace paragraph [0041] with the following amended paragraph:

[0041] The cathode masses contain:

50 – 85 % by weight	Li intercalatable heavy metal oxides + additive	} Solids
5 – [[20]] 30 % by weight	Polymer binder	
0.1 – 5 % by weight	Supporting electrolytes	
10 – 50 % by weight	Organic solvent	

Please replace paragraph [0041] with the following amended paragraph:

[0041] Organic solvents are preferably aprotic solvents which are suitable for use as solvents for the supporting electrolytes, ~~but also~~ as swelling agents for the polymer binder, and as ~~well as~~ polymerisable monomers and/or fluorine-containing flame proofing agents. In the following, some of the coating masses according to the invention are described[[:]]. The [[the]] separator masses (included in the solids content) contain at least 1 % by weight of vermiculite (in the unexpanded state).

Please replace paragraph [0042] with the following amended paragraph:

[0042] All composites [[of]] containing an anode mass component, a separator component and a cathode mass component additionally contain, in at least one of the components, ~~component~~ active substances containing unsaturated, cross-linkable, reactive double bonds.

Please replace paragraph [0044] with the following amended paragraph:

[0044] Components 1, 3 and 4 [[are]] were intensively mixed for 2 hours [[(2h)]] at room temperature and were then subsequently mixed with 4,5,7a, 7b, 7c at room temperature for 1 hour. ~~(room temperature 1h).~~

Please replace paragraph [0045] with the following amended paragraph:

[0045] In parallel, ~~the graphite (6) is provided,~~ supporting electrolyte (8) was added to the graphite (6) ~~is added~~ and the two material were ground ~~grinding carried out~~ for approximately 30 min at room temperature~~; subsequently,~~. Subsequently, the capped polyether and the solvent (7c) [[are]] were added in succession and stirring [[is]] was continued for a further 1 ½ to 2[[h]] hours at room temperature. ~~(room temperature).~~ The graphites (3) and (6) used were degassed at 10^{-2} torr and 100^{0}C before use and subsequently processed further under argon.

Please replace paragraph [0046] with the following amended paragraph:

[0046] AM II was processed in a similar manner as AM I, except that instead ~~Instead~~ of polyether (2), poly-n-hexyl methacrylate, molecular weight 30 – 50,000, [[is]] was used. As with AM I, the processing of AM II was ~~The work is~~ carried out under argon~~, the~~. However, the graphites [[are]] were initially heated under vacuum at 100 °C and 0.1 torr and subsequently reacted at room temperature with n-butyl lithium (5 % in n-hexane) (10 ml n-BuLi solution per 100 g of graphite). The graphites were then ~~subsequently again~~ reheated, degassed and processed as detailed above.

Please replace paragraph [0047] with the following amended paragraph:

[0047] AM III was processed in a similar manner as AM I, except that 7 % by weight of $LiPF_6$ and 1 % by weight of MgO [[are]] was used as a supporting electrolyte.

Please replace paragraph [0048] with the following amended paragraph:

[0048] AM IV was processed in a similar manner as AM I, except that Li oxalatoborate (LiOB), 8 % by weight, [[is]] was used as a supporting electrolyte and vinyl pyrrolidone [[is]] was used in the polymer binder instead of divinyl benzene 1 % by weight.

Please replace paragraph [0049] with the following amended paragraph:

[0049] In processing AM V, 4 % by weight of Dyneon THV [[are]] was expanded with 1 % by weight of hexafluoro-1,5-pentane diyldimethacrylate as the polymer binder. [[and]] 10 % by weight of graphite (6) UP8® was [[are]] added to the polymer binder and the mixture was [[and]] thoroughly ground at 50^{0}C for 60 minutes under an ~~min. (~~argon blanketing atmosphere[[);]]. Subsequently, ~~subsequently,~~ 5 % by weight (2) of Polyox WSR 301® esterified with methacrylic acid groups at the terminal OH groups and 8 % by weight of supporting electrolyte (8) $LiPF_6$ [[are]] were added and ground once more for 60 min.~~,~~ ~~subsequently,~~ Subsequently, 60 parts of graphite (6) UP8® and the solvents (7a-7c) + (5) as well as the supporting electrolyte additive 1 % by weight of Li acetyl acetonate [[are]] were added to the substance to be ground and grinding [[is]] was again carried out for 60 min. at 50^{0}C.

Please replace paragraph [0050] with the following amended paragraph:

[0050] Subsequently, the ground substance [[is]] was extruded from a Collin extruder at 65-70 ^{0}C through a slot die onto a primer-coated Cu foil[[:]] at an initial thickness of 30-40 μm, and then compacted to 25-30 μm by subsequent ~~laminating.~~ lamination.

Please replace paragraph [0051] with the following amended paragraph:

[0051] All work [[is]] was carried out under argon as a blanketing gas~~, the~~. Prior to use, the graphites ~~used~~ were degassed ~~before use~~ at 100 ^{0}C~~, 3h~~ for 3 hours at 0.1 torr and treated with Li-n-butyl in the same way as the anode mass AM II.

Please replace paragraph [0052] with the following amended paragraph:

[0052] In the processing of AM VI, ethylene glycol dialkyl ether was used in [[In]] the same way as AM I used [[as]] solvent 7a (2 % by weight~~) ethylene glycol dialkyl ether is used~~.

Please replace paragraph [0053] with the following amended paragraph:

[0053] All the graphites used had an ash content (DIN 51903, 800^{0}C) < 0.01 % and contained no particles of < 6 μm.

Please replace paragraph [0054] with the following amended paragraph:

[0054] The cathode mass KM I [[is]] was produced by mixing LiCo oxide (1) with Li oxalatoborate~~; the~~. A mixture of polymer binder (2), polymer additive (3), monomer (3a) and solvents (6a-6d) [[is]] was then added and mixed thoroughly for [[2h]] 2 hours at room temperature.

Please replace paragraph [0055] with the following amended paragraph:

[0055] KM II was produced in similar manner as KM I, except that a [[A]] mixture of LiNi oxide and LiCo oxide (weight 1:1) [[is]] was used as the Li intercalated metal oxide.

Please replace paragraph [0056] with the following amended paragraph:

[0056] KM III was produced in similar manner as KM I, except that the supporting electrolyte (4) was Li(trifluoromethyl sulphonyl) imide $Li[N(SO_2CF_3)_2]$ ~~$Li[Ni(SO_2CF_3)_2]$ is used as supporting electrolyte (4)~~ and the supporting electrolyte additive was Al_2O_3~~ as supporting electrolyte additive~~.

Please replace paragraph [0057] with the following amended paragraph:

[0057] KM IV was produced with Spinel Mn oxide ~~is used~~ as the Li intercalated metal oxide (1) in a quantity of 65 % by weight[[;]]. 5 % by weight of Ensaco carbon black [[is]] was then added to the LiMn oxide and EC [[is]] was added to the supporting electrolyte (4) and to the solvent (6b). The materials were ground in a ball mill ~~and grinding carried out~~ for 30 min. at room temperature ~~in a ball mill; subsequently,~~. Subsequently, ~~the mixture of~~ the remaining components of the batch: monomer (3a), polymer binder (2), polymer additive (3) and the solvents (6a, 6c, 6d) [[are]] were added and mixing [[is]] was carried out for 60 min. at room temperature (40V/min).

Please replace paragraph [0058] with the following amended paragraph:

[0058] All heavy metal oxides were degassed for 1 hour at 100 ^{0}C and at 10^{-1} torr, ~~10-1 torr, 1h, 100 ^{0}C,~~ and processed under argon. Micro-particles of < 6 μm were removed by sieving.

Please replace paragraph [0059] with the following amended paragraph:

[0059] ~~These~~ Separator masses are layers between the anode and cathode and consist of polymers with a porous structure which are present in the form of woven fabrics, fleece, networks, perforated foils or such like and have a thickness of 10-30 μm, preferably 5-20 μm. The ~~materials~~ separator masses can be of an organic or inorganic nature. If ~~, if~~ necessary [[they]] the separator masses are mixtures of organic and inorganic materials. [[; a]] A suitable form of the separator masses consists of sol-gel coatings or coatings applied onto the anode mass and/or cathode mass ~~- or on both - and~~, which then form the separator layer between the anode and cathode during the joining operation.

Please replace paragraph [0060] with the following amended paragraph:

[0060] A preferred form of the separator consists of extruded foils in the thicknesses indicated which can be extruded ~~made~~ in the form of the anode and/or the cathode mass ~~also by extrusion~~ and then combined to composite systems by coextrusion in line with the arrangement shown in Figure 2a/2b (literature reference L.M. Carrier: Polymeric materials and processing, Hanser Verlag Munich (1990) page 387).

Please replace paragraph [0062] with the following amended paragraph:

[0062] Extruded ~~In the case of the extruded~~ separators include[[,]] polymers, e.g. fluoroelastomers based on tetrafluoroethylene, hexofluoropropene and vinylidene fluoride as a Bi or terpolymer, e.g. Kynar 2801® Dyneon THV 120® or such like. Extruded separators also include[[,]] polyvinyl pyrrolidone, polyether and such like. Extruder polymers also include[[,]] polymers expanded with the solvents based on alkyl carbonates or low molecular glycol ethers or polyfluoroethers~~are used~~.

Please replace paragraph [0063] with the following amended paragraph:

[0063] The ~~proportion of~~ polymers [[is]] are 5-20 % by weight~~, that~~ of the solvent and 10-50 % by weight[[,]] based on the total weight of the separator~~respectively~~.

Please replace paragraph [0064] with the following amended paragraph:

[0064] The compounds listed under the anode and cathode masses as suitable supporting electrolytes are also suitable for use as supporting electrolytes in the separator. In the separator, the supporting electrolytes ~~which~~ are used in quantities of 1-15 % by weight of the separator.

Please replace paragraph [0066] with the following amended paragraph:

[0066] For the production of the separator mass, ethylene carbonate and propylene carbonate [[are]] were added to polymers, e.g. Kynar 2801® + polyvinyl pyrrolidone (molecular weight 5,000) and mixed in a Voith mixer at 100 ^{0}C, for 60 min. under argon blanketing gas~~;~~ ~~subsequently,~~. Subsequently, the mixture was cooled ~~cooling~~ to room temperature ~~is carried out~~

and the mixture was [[is]] granulated~~; these~~. The granules [[are]] were then introduced into a Collin extruder (filling nozzle 1) and extruded at a temperature of 85-90 ^{0}C~~; simultaneously~~. Simultaneously, a mixer of diethyl carbonate/$LiPF_6$/MgO and vermiculite (unexpanded) [[is]] was metered into [[the]] a second filling nozzle of the extruder with stirring. The ~~and the~~ mixture, following residence times of approximately 2 minutes, were then discharged through a slot die, 15 cm wide, in the form of a film 30-35 μm thick and joined in a laminator as an intermediate layer between the cathode and anode~~, which are~~. The cathode and the anode are then provided with conductor foil, and compacted with the separator to form a composite system.

Please replace paragraph [0067] with the following amended paragraph:

[0067] All separator masses ~~contain~~ contained Si-S VII 1 % by weight vermiculite (unexpanded).

Please replace paragraph [0068] with the following amended paragraph:

[0068] The anode mass AM II was applied directly onto a Cu foil conductor (8 μm thick) under blanketing gas (Ar) in a Collin extruder at temperatures of 40-45 ^{0}C via a slot die 150 mm wide, in a thickness of 15-20 μm. The AM II was then laminated onto the Cu foil ~~-and laminated~~ at 80 ^{0}C. The anode mass/Cu foil lamination ~~system of Cu conductor with anode mass thus obtained~~ was then combined, in a further step, with a separator S I and the cathode mass KM I (which was applied onto a primer-coated Al foil) to form a composite battery system. The composite battery system was then ~~and~~ laminated at 80 ^{0}C.

Please replace paragraph [0069] with the following amended paragraph:

[0069] The cathode mass KM I [[is]] was extruded (in the same way as anode mass AM I in example 1) under argon as blanketing gas in a Collin extruder at 100-105 ^{0}C (width 150 mm and thickness 10-25 μm). After discharge from the slot die, the cathode mass was ~~and~~ laminated directly ~~after discharge from the slot die~~ onto a primer-coated Al foil (thickness: 12 μm, primer layer 3 μm) and combined with a separator film (Solupren) that was impregnated with a 1M solution of $LiPF_6$ in monoglycol-bis-tetrafluoroethyl ether (HC_2F_4-O-CH_2-CH_2-C_2F_4H). The

lamination was ~~and~~ then continuously laminated with the anode mass AM II applied onto a primer-coated Cu foil.

Please replace paragraph [0070] with the following amended paragraph:

[0070] The composite system produced according to examples 1 and 2 was ~~correspondingly (example 1 – example 2) is~~ processed into a coil, placed in a housing and processed into a battery ready for use by laser welding of the electrolyte conductors to the + or – poles. The diameter of the battery [[is]] was 8 cm~~, charging takes placed~~. Charging took place galvanostatically (Digatron charger), with the first stage charging up to approximately 3 volts, ~~volt,~~ then up to 3.5 volts and finally up to 4.1 volts, ~~volt,~~ at 0.15 mA/cm^2 respectively.

Please replace paragraph [0071] with the following amended paragraph:

[0071] Discharging ~~takes~~ took place at 0.15 mA/cm^2. The discharge capacity [[is]] was 43 Ah with an active surface of 0.5 m^2.

Please replace paragraph [0072] with the following amended paragraph:

[0072] The cycle stability [[is]] was > 300, fading approximately 1 %.

Please replace paragraph [0074] with the following amended paragraph:

[0074] Processing for examples 4 -9 took ~~takes~~ place as described for Examples 1-3~~, as separator was used, details~~. Details on the separators of the examples are provided below. Detail in ( ) are parts by weight.

Please replace paragraph [0075] with the following amended paragraph:

[0075] If work is not carried out under the conditions according to the invention, i.e.

1. Degassing of the active masses
2. Intensive mixing of the starting products under blanketing gas (argon)
3. Separate two-stage mixing of the active components,

then cycle stabilities of only 50-150 are achieved with a fading of > 2.5 %.